#### AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

#### Listing of Claims:

 $\begin{tabular}{ll} \textbf{1. (Previously Presented)} & A & sulfonamide compound \\ according to formula & I \end{tabular}$ 

$$Ar^{1}$$
  $N$   $(CH_{2})_{n}$   $Ar^{2}$   $SO_{2}$   $Y$   $X$   $R^{1}$ 

with its geometrical isomers, in an optically active form as enantiomers, diastereomers, as well as in the form of racemates, as well as pharmaceutically acceptable salts thereof, wherein

Ι

Ar<sup>1</sup> is selected from the group consisting of phenyl, thienyl, furanyl, pyridyl, and optionally substituted by substituted or unsubstituted  $C_1$ - $C_6$  alkyl, substituted or unsubstituted  $C_1$ - $C_6$  alkoxy, substituted or unsubstituted  $C_2$ - $C_6$  alkenyl, substituted or unsubstituted  $C_2$ - $C_6$  alkenyl, amino, acylamino, aminocarbonyl,  $C_1$ - $C_6$  alkoxycarbonyl, aryl, carboxyl, cyano, halo, hydroxy, nitro, sulfonyl, sulfoxy, acyloxy,  $C_1$ - $C_6$  thioalkoxy;

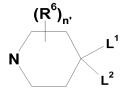
 ${
m Ar}^2$  is selected from the group consisting of thienyl, furanyl, and pyridyl;

X is O or S;

 $R^1$  is hydrogen or a  $C_1$ - $C_6$ -alkyl group, or  $R^1$  forms a substituted or unsubstituted 5-6-membered saturated or unsaturated ring with  $Ar^1$ ;

n is an integer from 0 to 5;

Y is a piperidino group of the formula



wherein

L<sup>1</sup> and L<sup>2</sup> are independently selected from the group consisting of H, substituted or unsubstituted  $C_1$ - $C_6$ -alkyl, substituted or unsubstituted  $C_2$ - $C_6$ -alkenyl, substituted or unsubstituted  $C_2$ - $C_6$ -alkynyl, and substituted or unsubstituted cyclic  $C_4$ - $C_8$ -alkyl optionally containing 1-3 heteroatoms and optionally fused with aryl or heteroaryl; or L<sup>1</sup> and L<sup>2</sup> are independently selected from the group consisting of substituted or unsubstituted aryl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aryl- $C_1$ - $C_6$ -alkyl, heteroaryl- $C_1$ - $C_6$ -alkyl, -C(0)-OR<sup>3</sup>, -C(0)-OR<sup>3</sup>, -OR<sup>3</sup>(O) NR<sup>3</sup>(OR<sup>3</sup>, -OR<sup>3</sup>(O) NR<sup>3</sup>(O) NR<sup>3</sup>(OR<sup>3</sup>, -OR<sup>3</sup>(O) NR<sup>3</sup>(O) NR<sup>3</sup>(O)

with  $R^3$  and  $R^{3'}$  being substituents independently selected from the group consisting of H, substituted or unsubstituted  $C_1$ - $C_6$ -alkyl, substituted or unsubstituted  $C_2$ - $C_6$ -alkenyl, substituted or unsubstituted aryl, substituted or

unsubstituted heteroaryl, substituted or unsubstituted aryl-  $C_1$ - $C_6$ -alkyl, and substituted or unsubstituted heteroaryl- $C_1$ - $C_6$ -alkyl;

said aryl or heteroaryl groups being optionally substituted  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_6$ -alkoxy,  $C_2$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkynyl, amino, acylamino, aminocarbonyl,  $C_1$ - $C_6$ -alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfonyl, sulfoxy or  $C_1$ - $C_6$ -thioalkoxy; and

 $R^6$  is selected from the group consisting of hydrogen, substituted or unsubstituted  $C_1$ - $C_6$ -alkyl, substituted or unsubstituted  $C_1$ - $C_6$ -alkoxy, OH, halogen, nitro, cyano, sulfonyl, and oxo (=0); and

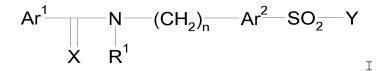
n' is an integer from 0 to 4;

with the proviso that if  $Ar^1$  is 4-chlorophenyl, then X is O,  $R^1$  is H,  $Ar^2$  is thienyl, and Y is not para-substituted by 2-hydroxyethyl;

wherein the term "substituted" means that the group that is substituted is substituted with from its 5 substituents, said substituents being a group selected from the group consisting of C<sub>1</sub>-C<sub>6</sub> alkyl; C<sub>1</sub>-C<sub>6</sub> alkyl aryl; C<sub>1</sub>-C<sub>6</sub> alkyl heteroaryl; C<sub>2</sub>-C<sub>6</sub> alkenyl; C<sub>2</sub>-C<sub>6</sub> alkynyl; primary, secondary or tertiary amino groups; quaternary ammonium groups; acyl; acyloxy; acylamino; aminocarbonyl; alkoxycarbonyl; aryl; heteroaryl; carboxyl; cyano; halogen;

hydroxyl; mercapto; nitro; sulfoxy; sulfonyl; alkoxy, thioalkoxy; and trihalomethyl.

2. (Previously Presented) A composition comprising a sulfonamide compound according to formula I



with its geometrical isomers, in an optically active form as enantiomers, diastereomers, as well as in the form of racemates, as well as pharmaceutically acceptable salts thereof, wherein

X is O or S;

 ${\rm Ar}^1$  and  ${\rm Ar}^2$  are a substituted or unsubstituted aryl or heteroaryl group;

 $R^1$  is hydrogen or a  $C_1\text{--}C_6\text{--alkyl}$  group, or  $R^1$  forms a substituted or unsubstituted 5-6-membered saturated or unsaturated ring with  $Ar^1$ ;

n is an integer from 0 to 5;

Y is a piperidino group of the formula

wherein

L¹ and L² are independently selected from the group consisting of H, substituted or unsubstituted  $C_1$ - $C_6$ -alkyl, substituted or unsubstituted  $C_2$ - $C_6$ -alkenyl, substituted or unsubstituted  $C_2$ - $C_6$ -alkynyl, and substituted or unsubstituted cyclic  $C_4$ - $C_8$ -alkyl optionally containing 1-3 heteroatoms and optionally fused with aryl or heteroaryl; or L¹ and L² are independently selected from the group consisting of substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aryl- $C_1$ - $C_6$ -alkyl, heteroaryl- $C_1$ - $C_6$ -alkyl, -C(0)- $OR^3$ , -C(0)- $R^3$ , -C(0)- $NR^3$ ' $R^3$ , - $R^3$ ', -R

with  $R^3$  and  $R^{3'}$  being substituents independently selected from the group consisting of H, substituted or unsubstituted  $C_1$ - $C_6$ -alkyl, substituted or unsubstituted  $C_2$ - $C_6$ -alkenyl, substituted or unsubstituted aryl, substituted or unsubstituted or unsubstituted aryl- $C_1$ - $C_6$ -alkyl, and substituted or unsubstituted heteroaryl- $C_1$ - $C_6$ -alkyl;

said aryl or heteroaryl groups being optionally substituted  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_6$ -alkoxy,  $C_2$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkyl, amino, acylamino, aminocarbonyl,  $C_1$ - $C_6$ -alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfonyl, sulfoxy, or  $C_1$ - $C_6$ -thioalkoxy; and

 $R^6$  is selected from the group consisting of hydrogen, substituted or unsubstituted  $C_1$ - $C_6$ -alkyl, substituted or unsubstituted  $C_1$ - $C_6$ -alkoxy, OH, halogen, nitro, cyano, sulfonyl, and oxo (=0); and

n' is an integer from 0 to 4; and a pharmaceutically acceptable carrier.

#### Claims 3-4. (Cancelled)

- 5. (Previously Presented) A sulfonamide compound according to claim 1, wherein  $Ar^1$  is selected from the group consisting of phenyl, thienyl, furyl, pyridyl, and optionally substituted by  $C_1-C_6$ -alkyl,  $C_1-C_6$ -alkoxy,  $C_2-C_6$ -alkenyl,  $C_2-C_6$ -alkynyl, amino, acylamino, aminocarbonyl,  $C_1-C_6$ -alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfonyl and  $C_1-C_6$ -thioalkoxy.
- 6. (Previously Presented) A sulfonamide compound according to claim 5, wherein  $\mathrm{Ar}^1$  is an unsubstituted or substituted phenyl.
- 7. (Previously Presented) A sulfonamide compound according to claim 5, wherein  $\mathrm{Ar}^2$  is thienyl or furanyl group.

- 8. (Previously Presented) A sulfonamide compound according to claim 1, wherein  $Ar^1$  is selected from the group consisting of a 4-chlorophenyl, nitrophenyl, hydroxyphenyl, alkoxy phenyl, pyridyl, 3,4,-dihydroxyphenyl, and X is O,  $R^1$  is hydrogen, n is 1,  $Ar^2$  is thienyl or furanyl.
- 9. (Previously Presented) A sulfonamide compound according to claim 8, wherein Y is

 $(R^6)$  is selected from the group consisting of hydrogen, substituted or unsubstituted  $C_1$ - $C_6$  alkyl, substituted or unsubstituted  $C_1$ - $C_6$  alkoxy, OH, halogen, nitro, cyano, sulfonyl, and oxo; n' is an integer of from 0 to 4; and

wherein  $L^1$  and  $L^2$  are independently selected from each other from the group consisting of H, substituted or unsubstituted  $C_1$ - $C_6$ - alkyl, substituted or unsubstituted  $C_2$ - $C_6$  alkenyl; or  $L^1$  and  $L^2$  are independently selected from the group consisting of substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, substituted or unsubstituted cyclic  $C_4$ - $C_8$  alkyl optionally containing 1-3 heteroatoms and optionally fused with aryl or heteroaryl, aryl- $C_1$ - $C_4$  alkyl,

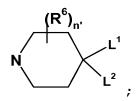
heteroaryl- $C_1$ - $C_4$  alkyl, -C(0)-OR<sup>3</sup>, -C(0)-R<sup>3</sup>, -C(0)-NR<sup>3</sup>'R<sup>3</sup>, -NR<sup>3</sup>'R<sup>3</sup>;-NR<sup>3</sup>'C(0)R<sup>3</sup>, -NR<sup>3</sup>'C(0)R<sup>3</sup>, -(SO)R<sup>3</sup>, -(SO<sub>2</sub>)R<sup>3</sup>, -NHSO<sub>2</sub>R<sup>3</sup>, and -SO<sub>2</sub>NR<sup>3</sup>R<sup>3</sup>';

with  $R^3$  and  $R^{3'}$  being substituents independently selected from the group consisting of H, substituted or unsubstituted  $C_1$ - $C_4$  alkyl, substituted or unsubstituted  $C_2$ - $C_6$  alkenyl, substituted or unsubstituted aryl, substituted or unsubstituted or unsubstituted aryl- $C_1$ - $C_4$ -alkyl, substituted or unsubstituted heteroaryl- $C_1$ - $C_6$ -alkyl;

said aryl or heteroaryl groups being optionally substituted with a member selected from the group consisting of  $C_1$ - $C_6$ -alkyl,  $C_1$ - $C_6$ -alkoxy,  $C_2$ - $C_6$ -alkenyl,  $C_2$ - $C_6$ -alkynyl, amino, acylamino, aminocarbonyl,  $C_1$ - $C_6$ -alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfonyl, sulfoxy and  $C_1$ - $C_6$ -thioalkoxy.

10. (Previously Presented) A sulfonamide compound according to claim 9, wherein  $R^6$  is H,  $L^2$  is H,  $L^1$  is a 5-membered cyclic group containing 3 heteroatoms or  $L^1$  is  $-C(0)-R^3$ , or  $-NHR^3$ ;

wherein Y is



n' is an integer of from 0 to 4;

with  $R^3$  being a substituent selected from the group comprising or consisting of  $C_1$ - $C_4$ -alkyl, aryl, heteroaryl, aryl- $C_1$ - $C_4$ -alkyl and heteroaryl- $C_1$ - $C_6$ -alkyl;

said aryl or heteroaryl groups being optionally substituted by halogen, hydroxy, nitro, or sulfonyl.

11. (Currently Amended) A sulfonamide compound according to claim 1, selected from the group consisting of:

4-chloro-N-{5-[4-(3-trifluoromethanesulfonyl-phenylamino)-piperidine-1-sulfonyl]-thiophen-2-ylmethyl}-benzamide;

4-chloro-N-[(5-{[4-(4-fluorobenzoyl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide;

4-chloro-N-({5-[(4-hydroxy-4-phenylpiperidin-1-yl)sulfonyl]thien-2-yl}methyl)benzamide;

N-({5-[(4-benzoylpiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-4-chlorobenzamide;

4-chloro-N-[(5-{[4-(2-oxo-2,3-dihydro-1H-benzimidazol-1-yl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide;

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N-({5-[(4-benzylpiperidin-1-yl)sulfonyl]thien-2-
yl}methyl)-4-chlorobenzamide;
          4-chloro-N-[(5-{[4-(2,4-difluorobenzoyl)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-chloro-N-{[5-(piperidin-1-ylsulfonyl)thien-2-
yl]methyl}benzamide;
          4-chloro-N-{[5-({3-hydroxy-4-[3-
(trifluoromethyl)phenyl|piperidin-1-yl}sulfonyl)thien-2-
yl]methyl}benzamide;
          4-chloro-N-([5-[(4-hydroxypiperidin-1-
yl)sulfonyl]thien-2-yl)methyl)benzamide;
          N-({5-[(4-benzyl-4-hydroxypiperidin-1-
yl)sulfonyl]thien-2-yl}methyl)-4-chlorobenzamide;
          N-\{[5-(\{4-[(2-tert-butyl-1H-indol-5-
yl)amino]piperidin-1-yl}sulfonyl)thien-2-yl]methyl}-4-
chlorobenzamide;
          4-chloro-N-{[5-({4-[(phenylacetyl)amino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}benzamide;
          N-[(5-\{[4-(2H-1,2,3-benzotriazol-2-yl)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-4-chlorobenzamide;
          4-chloro-N-[(5-{[4-(4-chlorobenzoyl)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-{[5-({4-[benzyl(methyl)amino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-4-chlorobenzamide;
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4-chloro-N-{[5-({4-[3-(2,4-dichlorophenyl)-1H-pyrazol-5-yl]piperidin-1-yl}sulfonyl)thien-2-yl]methyl}benzamide;

4-chloro-N-[(5-{[4-(2,3,4,5,6-pentamethylbenzoyl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide;

4-chloro-N-{[5-({4-[5-(4-methoxyphenyl)-1H-pyrazol-3-yl]piperidin-1-yl}sulfonyl)thien-2-yl]methyl}benzamide;

N-({5-[(4-anilinopiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-4-chlorobenzamide;

4-chloro-N-[(5-{[4-(2-phenylethyl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide;

 $N-[(5-\{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl\}thien-2-yl)methyl]-4-chlorobenzamide;$ 

2-{1-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperidin-4-yl}-2H-1,2,3-benzotriazole-5-carboxylic acid;

methyl  $1 - \{1 - [(5 - \{[(4 -$ 

chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperidin-4yl}-1H-1,2,3-benzotriazole-5-carboxylate;

methyl  $1 - \{1 - [(5 - \{[(4 -$ 

chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperidin-4yl}-1H-1,2,3-benzotriazole-6-carboxylate;

methyl  $2-\{1-[(5-\{[(4$ chlorobenzoyl)amino]methyl}thien-2-yl)sulfonyl]piperidin-4yl}-2H-1,2,3-benzotriazole-5-carboxylate; 4-chloro-N-[(5-{[4-(6-chloro-1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide;  $4-chloro-N-\{[5-(\{4-[5-(trifluoromethyl)-1H-1,2,3$ benzotriazol-1-yl|piperidin-1-yl|sulfonyl)thien-2yllmethyl}benzamide;  $N-[(5-\{[4-(7-aza-1H-benzimidazol-1-yl)piperidin-1$ yl]sulfonyl}thien-2-yl)methyl]-4-chlorobenzamide; 1-{1-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2yl)sulfonyl]piperidin-4-yl}-1H-1,2,3-benzotriazole-5carboxylic acid; 1-{1-[(5-{[(4-chlorobenzoyl)amino]methyl}thien-2yl)sulfonyl]piperidin-4-yl}-1H-1,2,3-benzotriazole-6carboxylic acid;  $N-[(5-\{[4-(2-amino-9H-purin-9-yl)piperidin-1$ yl]sulfonyl}thien-2-yl)methyl]-4-chlorobenzamide; 4-chloro-N-[(5-{[4-(9H-purin-9-yl)piperidin-1yl]sulfonyl}thien-2-yl)methyl]benzamide;  $N-[(5-\{[4-(6-amino-9H-purin-9-yl)piperidin-1$ yl]sulfonyl}thien-2-yl)methyl]-4-chlorobenzamide; 4-chloro-N-( $\{5$ -[(4- $\{6$ -nitro-1H-benzimidazol-1-

yl}piperidin-1-yl)sulfonyl]thien-2-yl}methyl)benzamide;

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4-chloro-N-(\{5-[(4-\{5-nitro-1H-benzimidazol-1-interval)\}\})
yl}piperidin-1-yl)sulfonyl]thien-2-yl}methyl)benzamide;
          4-chloro-N-[(5-{[4-(2H-1,2,3-triazol-2-yl)piperidin-
1-yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-[(5-\{[4-(1H-benzimidazol-1-yl)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-4-chlorobenzamide;
          4-chloro-N-{[5-({4-[3-propylanilino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}benzamide;
          4-chloro-N-{[5-({4-[3-
(dimethylamino)anilino]piperidin-1-yl}sulfonyl)thien-2-
yl]methyl}benzamide;
          methyl 3-({1-[(5-{[(4-chlorobenzoyl)amino]-}
methyl}thien-2-yl)sulfonyl]piperidin-4-yl}amino)-benzoate;
          4-chloro-N-{[5-({4-[3-
(methylsulfanyl)anilino]piperidin-1-yl}sulfonyl)thien-2-
yl]methyl}benzamide;
          4-chloro-N-({5-[(4-{3-nitroanilino}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
          4-chloro-N-[(5-{[4-(2-methoxyanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          3-(\{1-[(5-\{[(4-chlorobenzoyl)amino]methyl\}thien-2-
yl)sulfonyl]piperidin-4-yl}amino)benzamide;
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4-chloro-N-({5-[(4-{2-nitro-4-
[(trifluoromethyl)sulfonyl]anilino}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
          4-chloro-N-[(5-{[4-(4-chloroanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-chloro-N-({5-[(4-{4-
[(trifluoromethyl)sulfonyl]anilino}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
          4-chloro-N-({5-[(4-{2-nitroanilino}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
          N-{[5-({4-[4-(aminocarbonyl)anilino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-4-chlorobenzamide;
          N-[(5-\{[4-(3-chloroanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-nitrobenzamide;
          4-chloro-N-[(5-{[4-(3-chloroanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-chloro-N-[(5-{[4-(3-methoxyanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-chloro-N-{[5-({4-[3-
(methylsulfonyl)anilino]piperidin-1-yl}sulfonyl)thien-2-
yl]methyl}benzamide;
          N-[(5-\{[4-(2-aminoanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-4-chlorobenzamide;
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4-chloro-N-[(5-\{[4-(2-hydroxyanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-chloro-N-[(5-{[4-(4-hydroxyanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-chloro-N-[(5-{[4-(3-toluidino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-[(5-\{[4-(3-tert-butylanilino)piperidin-1-
yl|sulfonyl}thien-2-yl)methyl|-4-chlorobenzamide;
          4-chloro-N-[(5-{[4-(2-propylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-chloro-N-[(5-{[4-(4-propylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-chloro-N-[(5-{[4-({3-nitropyridin-2-
yl}amino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-\{[5-(\{4-[(3-aminopyridin-2-yl)amino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-4-chlorobenzamide;
          4-chloro-N-[(5-{[4-(pyrimidin-2-ylamino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-chloro-N-(\{5-[(4-\{[4-(trifluoromethyl)pyrimidin-2-
yl]amino}piperidin-1-yl)sulfonyl]thien-2-yl}methyl)benzamide;
          4-chloro-N-[(5-\{[4-(3-\text{ethylanilino})\text{piperidin-}1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
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4-chloro-N-[(5-{[4-(quinolin-5-ylamino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-chloro-N-[(5-{[4-(quinolin-8-ylamino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-nitro-N-({5-[(4-{3-
[(trifluoromethyl)sulfonyl]anilino}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
          N-[(5-\{[4-(1H-1,2,3-benzotriazol-1-v])piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-nitrobenzamide;
          N-[(5-\{[4-(2,4-difluorobenzoyl)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-4-nitrobenzamide;
          N-[(5-\{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-4-nitrobenzamide;
          3-\text{nitro-N-}[(5-\{[4-(3-\text{methoxyanilino})\text{piperidin-}1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-\{[5-(\{4-[3-(dimethylamino)anilino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-3-nitrobenzamide;
          3-nitro-N-\{[5-({4-[3-
(methylsulfonyl)anilino|piperidin-1-yl}sulfonyl)thien-2-
yl]methyl}benzamide;
          3-nitro-N-\{[5-(\{4-[3-
(methylsulfanyl)anilino]piperidin-1-yl}sulfonyl)thien-2-
yl]methyl}benzamide;
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methyl 3-\{[1-(\{5-[(\{3-\text{nitrobenzoyl}\}\text{amino})\text{methyl}]-
thien-2-yl}sulfonyl)-piperidin-4-yl]amino}benzoate;
           N-{[5-({4-[3-(aminocarbonyl)anilino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-3-nitrobenzamide;
           3-\text{nitro-N-}(\{5-[(4-\{3-\text{nitroanilino}\}\text{piperidin-}1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
           3-\text{nitro-N-}[(5-\{[4-(2-\text{methoxyanilino})\text{piperidin-}1-
yl|sulfonyl}thien-2-yl)methyl|benzamide;
           3-\text{nitro-N-}(\{5-[(4-\{2-\text{nitroanilino}\}\text{piperidin-}1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
           N-[(5-\{[4-(4-chloroanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-nitrobenzamide;
           3-nitro-N-({5-[(4-{4-
[(trifluoromethyl)sulfonyl]anilino}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
           N-\{[5-(\{4-[4-[4-(aminocarbonyl)anilino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-3-nitrobenzamide;
           N-[(5-\{[4-(3-propylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-nitrobenzamide;
           N-[(5-\{[4-(3-chloroanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-4-nitrobenzamide;
           4-\text{nitro-N-}[(5-\{[4-(3-\text{methoxyanilino})\text{piperidin-}1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
```

 $N-\{[5-(\{4-[3-(dimethylamino)anilino]piperidin-1$ yl}sulfonyl)thien-2-yl]methyl}-4-nitrobenzamide; 4-nitro-N-[(5-{[4-(3-propylanilino)piperidin-1yl]sulfonyl}thien-2-yl)methyl]benzamide; 4-nitro-N-{[5-({4-[3-(methylsulfonyl)anilino]piperidin-1-yl}sulfonyl)thien-2yllmethyl}benzamide; 4-nitro-N-{[5-({4-[3-(methylsulfanyl)anilino]piperidin-1-yl}sulfonyl)thien-2yl]methyl}benzamide; methyl  $3-\{[1-(\{5-[(\{4-\text{nitrobenzoyl}\}\text{amino})\text{methyl}]$ thien-2-yl}sulfonyl)piperidin-4-yl]amino}benzoate;  $3-\{[1-(\{5-[(\{4-\text{nitrobenzoyl}\}\text{amino})\text{methyl}]\text{thien}-2$ yl}sulfonyl)piperidin-4-yl]amino}benzamide; 4-nitro-N-({5-[(4-{3-nitroanilino}piperidin-1yl)sulfonyl]thien-2-yl}methyl)benzamide; 4-nitro-N-[(5-{[4-(2-methoxyanilino)piperidin-1yl]sulfonyl}thien-2-yl)methyl]benzamide;  $4-\text{nitro-N-}(\{5-[(4-\{2-\text{nitroanilino}\}\text{piperidin-}1$ yl)sulfonyl]thien-2-yl}methyl)benzamide;  $N-[(5-\{[4-(4-chloroanilino)piperidin-1$ yl]sulfonyl}thien-2-yl)methyl]-4-nitrobenzamide;

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4-nitro-N-({5-[(4-{4-
[(trifluoromethyl)sulfonyl]anilino}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
          N-\{[5-(\{4-[4-(aminocarbonyl)anilino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-4-nitrobenzamide;
          N-({5-[(4-anilinopiperidin-1-yl)sulfonyl]thien-2-
yl}methyl)-3-nitrobenzamide;
          N-({5-[(4-anilinopiperidin-1-yl)sulfonyl]thien-2-
yl}methyl)-4-nitrobenzamide;
          3-nitro-N-[(5-{[4-({3-nitropyridin-2-})]}
yl}amino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide;
          3-nitro-N-[(5-{[4-(2-propylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          3-nitro-N-[(5-{[4-(4-propylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-[(5-{[4-(3-tert-butylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-nitrobenzamide;
          3-\text{nitro-N-}[(5-\{[4-(2-\text{phenylethyl})\text{piperidin-}1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-nitro-N-[(5-{[4-(pyrimidin-2-ylamino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-\{[5-(\{4-[(3-aminopyridin-2-yl)amino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-4-nitrobenzamide;
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4-nitro-N-[(5-{[4-({3-nitropyridin-2-
yl}amino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide;
          4-nitro-N-[(5-{[4-(2-propylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
           4-\text{nitro-N-}[(5-\{[4-(4-\text{propylanilino})\text{piperidin-}1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-[(5-\{[4-(3-tert-butylanilino)piperidin-1-
yl|sulfonyl}thien-2-yl)methyl|-4-nitrobenzamide;
           4-\text{nitro-N-}[(5-\{[4-(2-\text{phenylethyl})\text{piperidin-}1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-[(5-\{[4-(2-aminoanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-nitrobenzamide;
           3-\text{nitro-N-}[(5-\{[4-(\text{pyrimidin-}2-\text{ylamino})\text{piperidin-}1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-\{[5-(\{4-[(3-aminopyridin-2-yl)amino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-3-nitrobenzamide;
          N-({5-[(4-{2-nitro-4-}
[(trifluoromethyl)sulfonyl]anilino}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)-3-methoxybenzamide;
          N-[(5-\{[4-(3-ethylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-nitrobenzamide;
          N-[(5-\{[4-(2,4-difluorobenzoyl)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-nitrobenzamide;
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N-[(5-\{[4-(2,4-difluorobenzoyl)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-methoxybenzamide;
          2-Hydroxy-N-({5-[(4-{3-}
[(trifluoromethyl)sulfonyl]anilino}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
          N-[(5-\{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-methoxybenzamide;
          N-[(5-\{[4-(1H-1,2,3-benzotriazol-1-v])piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-2-hydroxybenzamide;
          3-methoxy-N-[(5-{[4-(3-methoxyanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-\{[5-(\{4-[3-(dimethylamino)anilino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-3-methoxybenzamide;
          3-methoxy-N-[(5-{[4-(3-propylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          3-methoxy-N-\{[5-(\{4-[3-
(methylsulfonyl) anilino]piperidin-1-yl}sulfonyl) thien-2-
yl]methyl}benzamide;
          3-methoxy-N-\{[5-(\{4-[3-
(methylsulfanyl)anilino]piperidin-1-yl}sulfonyl)thien-2-
yl]methyl}benzamide;
          methyl 3-(\{1-[(5-\{[(3-methoxybenzoyl)amino]-
methyl}thien-2-yl)sulfonyl]piperidin-4-yl}amino)-benzoate;
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N-{[5-({4-[3-(aminocarbonyl)anilino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-3-methoxybenzamide;
          3-methoxy-N-[(5-{[4-(2-methoxyanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-(\{5-[(4-\{3-\text{nitroanilino}\}\text{piperidin}-1-
yl)sulfonyl]thien-2-yl}methyl)-3-methoxybenzamide;
          N-(\{5-[(4-\{2-nitroanilino\}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)-3-methoxybenzamide;
          N-{[5-({4-[4-(aminocarbonyl)anilino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-3-methoxybenzamide;
          N-[(5-\{[4-(3-chloroanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-methoxybenzamide;
          N-[(5-{[4-(4-chloroanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-methoxybenzamide;
          3-methoxy-N-({5-[(4-{4-}
[(trifluoromethyl)sulfonyl]anilino}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
          3-methoxy-N-({5-[(4-{3-}
[(trifluoromethyl)sulfonyl]anilino}piperidin-1-
yl)sulfonyl]thien-2-yl}methyl)benzamide;
          N-({5-[(4-anilinopiperidin-1-yl)sulfonyl]thien-2-
yl}methyl)-3-methoxybenzamide;
          N-[(5-{[4-(4-hydroxyanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-methoxybenzamide;
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N-[(5-\{[4-(2-hydroxyanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-methoxybenzamide;
          3-methoxy-N-[(5-{[4-(pyrimidin-2-ylamino)piperidin-
1-yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-\{[5-(\{4-[(3-aminopyridin-2-yl)amino]piperidin-1-
yl}sulfonyl)thien-2-yl]methyl}-3-methoxybenzamide;
          N-[(5-\{[4-(\{3-\text{nitropyridin}-2-\text{yl}\}\text{amino})\text{piperidin}-1-
yl|sulfonyl}thien-2-yl)methyl|-3-methoxybenzamide;
          3-methoxy-N-[(5-{[4-(2-propylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          3-methoxy-N-[(5-{[4-(4-propylanilino)piperidin-1-}
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-[(5-{[4-(3-tert-butylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-methoxybenzamide;
          3-methoxy-N-[(5-{[4-(2-phenylethyl)piperidin-1-}
yl]sulfonyl}thien-2-yl)methyl]benzamide;
          N-[(5-\{[4-(3-ethylanilino)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3-methoxybenzamide;
               N-[(5-\{[4-(1H-1,2,3-benzotriazol-1-
yl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-2-oxo-1,2-
dihydropyridine-3-carboxamide;
          N-[(5-\{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]-3,4-dihydroxybenzamide;
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N-[(5-\{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-
yl]sulfonyl}thien-2-yl)methyl]pyridine-2-carboxamide;
          N-[(5-[[4-(hexyloxy)piperidin-1-yl]sulfonyl]thien-2-
yl)methyl]-3-methoxybenzamide;
          N-(\{5-[(4-heptanoylpiperidin-1-yl)sulfonyl]thien-2-
yl}methyl)-3-methoxybenzamide;
          4-chloro-N-[(5-{[4-(3-propylanilino)piperidin-1-
yl]sulfonyl}-2-furyl)methyl]benzamide;
          4-chloro-N-[(5-{[4-(3-chloroanilino)piperidin-1-
yl]sulfonyl}-2-furyl)methyl]benzamide;
          4-chloro-N-[(5-\{[4-(3-methoxyanilino)piperidin-1-
yl]sulfonyl}-2-furyl)methyl]benzamide;
          4-chloro-N-{[5-({4-[3-
(trifluoromethyl)anilino]piperidin-1-yl}sulfonyl)-2-
furyl]methyl}benzamide;
          4-chloro-N-{[5-({4-[3-
(dimethylamino)anilino]piperidin-1-yl}sulfonyl)-2-
furyl]methyl}benzamide;
          4-chloro-N-{[5-({4-[3-
(methylsulfonyl) anilino]piperidin-1-yl}sulfonyl) -2-
furyl]methyl}benzamide;
          4-chloro-N-{[5-({4-[3-
(methylsulfanyl)anilino]piperidin-1-yl}sulfonyl)-2-
furyl]methyl}benzamide;
```

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methyl 3-(\{1-[(5-\{[(4-chlorobenzoyl)amino]methyl\}-2-
furyl)sulfonyl]piperidin-4-yl}amino)benzoate;
          3-(\{1-[(5-\{[(4-chlorobenzoyl)amino]methyl\}-2-
furyl)sulfonyl]piperidin-4-yl}amino)benzamide;
          4-chloro-N-({5-[(4-{3-nitroanilino}piperidin-1-
yl)sulfonyl]-2-furyl}methyl)benzamide;
          4-chloro-N-[(5-{[4-(2-methoxyanilino)piperidin-1-
yl]sulfonyl}-2-furyl)methyl]benzamide;
          4-chloro-N-({5-[(4-{2-nitroanilino}piperidin-1-
yl)sulfonyl]-2-furyl}methyl)benzamide;
          4-chloro-N-[(5-{[4-(4-chloroanilino)piperidin-1-
yl]sulfonyl}-2-furyl)methyl]benzamide;
          4-chloro-N-({5-[(4-{4-
[(trifluoromethyl)sulfonyl]anilino}piperidin-1-yl)sulfonyl]-2-
furyl}methyl)benzamide;
          N-{[5-({4-[4-(aminocarbonyl)anilino]piperidin-1-
yl}sulfonyl)-2-furyl]methyl}-4-chlorobenzamide;
          4-chloro-N-({5-[(4-{3-
[(trifluoromethyl)sulfonyl]anilino}piperidin-1-yl)sulfonyl]-2-
furyl}methyl)benzamide; and
          N-({5-[(4-anilinopiperidin-1-yl)sulfonyl]-2-
furyl}methyl)-4-chlorobenzamide.
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12. (Previously Presented) A sulfonamide compound according to claim 11, which is selected from the group consisting of:

4-chloro-N-[(5-{[4-(2,4-difluorobenzoyl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide;

N-({5-[(4-anilinopiperidin-1-yl)sulfonyl]thien-2-yl}methyl)-4-chlorobenzamide;

 $N-[(5-\{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl\}thien-2-yl)methyl]-4-chlorobenzamide;$ 

N-[(5-{[4-(1H-benzimidazol-1-yl)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]-4-chlorobenzamide;

4-chloro-N-{[5-({4-[3-propylanilino]piperidin-1-yl}sulfonyl)thien-2-yl]methyl}benzamide;

4-chloro-N-[(5-{[4-(4-chloroanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide;

4-nitro-N-[(5-{[4-(3-methoxyanilino)piperidin-1-yl]sulfonyl}thien-2-yl)methyl]benzamide;

methyl  $3-\{[1-(\{5-[(\{4-$ 

nitrobenzoyl}amino)methyl]thien-2-yl}sulfonyl)piperidin-4yl]amino}benzoate;

 $N-[(5-\{[4-(1H-1,2,3-benzotriazol-1-yl)piperidin-1-yl]sulfonyl\}thien-2-yl)methyl]-2-hydroxybenzamide; and \\ N-(\{5-[(4-\{2-nitroanilino\}piperidin-1-yl)piperidin-1-yl)piperidin-1-yl]sulfonyl}$ 

yl)sulfonyl]thien-2-yl}methyl)-3-methoxybenzamide.

### Claims 13-19. (Cancelled)

- 20. (Previously Presented) A pharmaceutical composition containing at least one sulfonamide compound according to claim 1 and a pharmaceutically acceptable carrier, diluent or excipient.
- 21. (Previously Presented) Process for the preparation of a sulfonamide compound according to claim 1, comprising reacting a sulfonyl chloride according to formula V

$$Ar^{1}$$
  $H$   $N$   $CH_{2}$   $H$   $Ar^{2}$   $SO_{2}CI$ 

with an amine according to formula VIII

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ &$$

whereby

n is an integer of from 0 to 5,
n' is an integer of from 0 to 4,

 $R^6$  is selected from the group consisting of hydrogen, substituted or unsubstituted  $C_1$ - $C_6$  alkyl, substituted or unsubstituted  $C_1$ - $C_6$  alkoxy, OH, halogen, nitro, cyano, sulfonyl and oxo;

L¹ and L² are independently selected from the group consisting of hydrogen, substituted or unsubstituted  $C_2$ - $C_6$  alkyl, substituted or unsubstituted  $C_2$ - $C_6$  alkenyl, and substituted or unsubstituted  $C_3$ - $C_6$  alkynyl; or L¹ and L² are independently selected from the group consisting of substituted or unsubstituted aryl, substituted or unsubstituted aryl, substituted or unsubstituted heteroaryl, aryl- $C_1$ - $C_6$  alkyl, heteroaryl- $C_1$ - $C_6$  alkyl, substituted or unsubstituted cyclic  $C_4$ - $C_8$  alkyl optionally containing 1-3 heteroatoms and optionally fused with aryl or heteroaryl,  $-C(0)R^3$ ,  $-C(0)OR^3$ ,  $-C(0)-NR^3'R^3$ ,  $-NR^3'R^3$ ,  $-NR^3'C(0)R^3$ ,  $-NR^3'C(0)R^3'R^3$ ,  $-(SO)R^3$ ,  $(SO_2)R^3$ ,  $NHSO_2R^3$  and  $SO_2NR^3'R^3$ ;

with  $R^3$  and  $R^{3'}$  being substituents independently selected from the group consisting of hydrogen, substituted or unsubstituted  $C_1$ - $C_6$  alkyl, substituted or unsubstituted aryl, substituted or unsubstituted or

unsubstituted aryl-  $C_1$ - $C_6$  alkyl and substituted or unsubstituted heteroaryl-  $C_1$ - $C_6$  alkyl;

said aryl or heteroaryl groups being optionally substituted  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_2$ - $C_6$  alkenyl,  $C_2$ - $C_6$  alkynyl, amino, acylamino, aminocarbonyl,  $C_2$ - $C_6$  alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfonyl, sulfoxy and  $C_1$ - $C_6$  thioalkoxy.

- 22. (Previously Presented) A process according to claim 21, wherein said sulfonyl chloride of formula V is obtained by
  - a) coupling an amine of formula II:

$$R^1HN$$
— $(CH_2)_n$ — $Ar^2$ 

with an acyl chloride of formula III:

to provide an amide of formula IV:

b) sulfonating the amide of formula IV to provide the sulfonyl chloride of formula  $\ensuremath{\mathtt{V}}$ 

$$Ar^{1} \underset{O}{ \parallel} \underset{H}{ \parallel} CH_{2})_{n} Ar^{2} SO_{2}CI$$

V.

# Claims 23-26. (Cancelled)

- 27. (Previously Presented) The sulfonamide compound according to claim 1 wherein n is an integer of from 1 to 3.
- 28. (Previously Presented) The sulfonamide compound according to claim 27 wherein n is 1.
- 29. (Previously Presented) The composition according to claim 2 wherein n is an integer of from 1 to 3.
- 30. (Previously Presented) The composition according to claim 29 wherein n is 1.
- 31. (Previously Presented) The composition according to claim 2 wherein n is 1 or 2.

### Claims 32-34. (Cancelled)

35. (Previously Presented) The sulfonamide compound according to claim 5 wherein the  $C_1\text{--}C_6$  alkyl group is trihalomethyl.

## Claims 36-41. (Cancelled)